

W6IFE San Bernardino Microwave Society Newsletter

W6IFE Newsletter

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The 4 **February 1999** meeting of the SBMS will have George, K6MBL talk to us about the operation of radar. The SBMS meets at the American Legion Hall 1024 Main Street (south of the 91 freeway in Corona, CA at 1900 hours local time on the first Thursday of each month..

Last Meeting-Dave, WA6CGR wasn't able to make meeting so there was a show and tell by several members. Doug, K6JEY talked about a 47 GHz dish and boresight tool; Chuck, WA6EXV talked about a 47 GHz dish, a 24 GHz feed and a 2 GHz power amplifier; Ken WB6DTA talked about a SSB 2 GHz transverter; Steve Gregory VK3OT/VK3SIX/KL7SIX talked about being an exchange teacher in Wasilla, Alaska with temps to -30 C where RG-8 goes rigid and antennas shorten out of tune and the aurora. Welcome to far out member Paul Lieb KH6HME from Hawaii and visitors Dan Welch, W6DFW of Anaheim, Steve Gregory, KL7SIX/VK3SIX/VK3OT of Anchorage, Carl Wulfstieg, WD6DRJ of Yorba Linda. Welcome to new members Ken Bourne, W6HK of Orange and Jack Henry, N6XQ of San Diego.

27 present.

The Winter SBMS Social will be held in Inyokern on 27 Feb. Chuck, WA6EXV has set up reservations at the Two Sisters Restaurant. Planned is a visit to Chuck's lab/ machine shop/ antenna range/ EME facilities from noon to 5 p.m. Then collect at the restaurant and plan to eat at 6 p.m. This allows plenty of time for discussion, etc. and gets everyone home by a reasonable time. This is a family type event, so bring the spouse/friend/significant other and enjoy the high desert. Ridgecrest/ Inyokern is some 3 hours north of Corona.

Travel can be accomplished by either traveling north on 215/15 highways to 395 and north on 395 to Inyokern (178) or by highway 14 north to Inyokern (178). Going east on 178 from Inyokern for 4 miles will bring you to Chuck's QTH in Butter Milk Acres. Turn off at Buttermilk Acres Store (Chevron gas station). Then make an immediate left on to a frontage road for one block to Oak Lane. A right turn will take you down to the second house on the right (1609 Oak Lane) where you will find Chuck's QTH. A local wide-area repeater is the 147.00+ 107 pl. (El Paso Pk) or a 447.025- 123 pl. machine for those needing voice reassurances. Plan on warm day followed by cold night. See the enclosed map and menu. We can order from the menu or take the Buffet Dinner, and separate checks will be made. The All You Can Eat Buffet will consist of: Ribs, Fried Chicken, four Vegetables, Salad bar and Dessert.

Scheduling-

Feb. 27 Winter SBMS Social in Inyokern, CA (see notes above and map & menu enclosed).

Mar 4 Chuck WA6EXV TBD

Apr. 1 Dave, WA6CGR tell us about the design and construction of his frequency locked SSB 24 GHz rig.

May 6 TBD

June 3 TBD

June 12-14 ARRL June VHF QSO Party

June 26-27 ARRL Field Day

July 1 TBD

Aug. 5 TBD

Aug. 7-8 ARRL UHF Contest

Aug. 21-22 ARRL 10 GHz and Up Cumulative first half

Sept. 11-12 ARRL September VHF QSO Party

Sept. 18-19 ARRL 10 GHz and Up Cumulative Second Half

Proposed tech talks needing a leader- frequency measurements workshop; improvements to a narrowband rig; precontest tune up session; antenna range for the average ham

Wants and GOTS (for sale)

For Sale HP 8690B Sweep Generator with manuals covering 0.1-2.0 GHz, 0.4-8.0 GHz, and 0.7-12.4 GHz \$145
Bob Gardner W6SYA (818)248-3683

For Sale HP616B 1.8-4.2 GHz, HP618 3.4-7.6 GHz, HP620 7-11 GHz, HP626 10-15.5 GHz \$50 each Ken
WB6DTA 818-848-9059

For Sale HP5245 counter and 2 plugins to 12.4 GHz and synthesizer for HP608 sig gen Doug, K6JEY 562-424-3737

For Sale 5 MHz Heathkit scope, HP 122 rack mount scope, HP 120 bench scope, Tektronix 545 ca plugin, Tektronix 585 adapter + ca plugin, Tektronix scope cart-make offer - I'd like to see these go to good homes where they'll be used by people who need them. Eric, KD6GLP 714-577-0045

Want- HP8621B Sweep Generator Plugins covering 0.1-2.4 GHz Bob Gardner W6SYA (818)248-3683

Activity reported at the January meeting- Dick, WB6DNX cleaned out shack and suggests the people building 2 GHz rigs out of the excess parts bring in what they have assembled to show and tell; Chuck, WA6EXV still assembling the 100w 10 GHz klystron amplifier, has finished the jigs to make S parameter measurements on some 8 GHz MMICs headed for a 5 GHz rig; Bill, WA6QYR was working with antennas for 60 KHz WWVB and learning Touchstone; Ken, WB6DTA worked with Bob, W6SYA on building some 2 GHz loop yagis and an transverter; Ed, W6OYJ reported that Kerry, N6IZW was building some 24 GHz filters and planning an all band microwave beacon for San Diego; Paul, KH6HME reported the 6m through 1296 beacons on air in Hawaii most of which were heard in CA on Dec 11; Mel, WA6JBD built a 30 dB gain horn antenna for 47 GHz; Kurt, K6RRA is collecting parts for 2 and 10 GHz rigs; Eric, KD6GLP is building a 2 GHz source for the shack; Joe, WA6PAZ gave a tech talk at the Western Amateur Radio association meeting two days ago (resulting in several visitors to SBMS meeting, thanks Joe); Paul, WB6GHK is looking for Gunnplexer circuits; Gary, W6KVC replaced cables on 3 GHz ATV rig; Doug, K6JEY is collecting 47 GHz pieces and documenting VUCC for 10 and 24 GHz;

Documentation in SBMS - The San Bernardino Microwave Society started in 1955 when there was a lot of military surplus from W.W.II available. The group had a number of folks who were in to the technician/engineering side of the electronics industry. (We still have a number in the technical side). Several rigs were built and documented so that others could build similar items and test/check them using another guys working gear. There were standard power connections and interconnection pinouts. Operation was mainly on 3335 and 3365 MHz using klystrons. Other bands were in operation too. Some good stuff and techniques came out of this then state of the art work. There was a "manual" made as mimeographed meeting handouts that sort of grew with time. In the late 70's another version of "manual" was attempted by having members write items to go into it. You know how volunteer writing goes. Some of the stuff never got written. It contained many chapters. Some copies of the "manual" were made and passed out. Time and technology have over taken most of that operation. Transistorized versions of the original "ROCKLOC" (a frequency lock scheme to control klystrons) were made by WA6EXV and WA6QYR. Then in 1979 the gunn oscillator became available. Some company printed a cookbook on various ways to set up a rig, but that is out of print now. A gunnplexer article collection by the SBMS was an attempt to collect some of the material out of magazines, etc. and make a handout for new folks. Dick Bremer, WB6DNX did most of that effort a year ago. The gunnplexer rig is the simplest one to start with. Since the gunnplexer, a number of commercial transverters have become available at the swap meets and they have been converted for ham band use. A number of "2 GHz" commercial hardware have been excessed and ended up as parts to build transverters with. WB6DNX was the main guy on that collection/ distribution of hardware. Chuck, WA6EXV and Bill, WA6QYR have documented some of it. Your best bet in getting current reading material is the ARRL group of books. The ARRL UHF/ Microwave Experimenters Manual ARRL #3126 \$20; The ARRL UHF/ Microwave Projects Manuals vol 1 and 2 #4491 \$20 and #6311 \$15. The ARRL also has the RSGB Microwave Handbooks Vol. 1/2/3 \$35 each which are good too. The ARRL prints a number of the VHF&up convention proceedings (Central States, NorthEastern, Microwave Update) which have good ideas and circuits. You can find most of those on the ARRL webpage, <http://www.arrl.org>. A number of clubs have newsletters--- some of those clubs I trade with and bring them to the SBMS meetings. SBMS has several mentors or Elmers to help. The list was in the January newsletter. I try to include circuits and write-ups on gear and operations in the SBMS newsletter. Some material comes from other newsletters; some from member tech talks at SBMS meetings; some members will document what they have built; some I just write myself. Hope all this helps. Welcome to the group. If you need more words, let me know. Coming early to meetings gets you a chance to ask questions and collect ideas. Some of the group usually eats dinner about 5 pm at a local place then heads to the meeting hall around 6-6:30. Bill WA6QYR

ARRL PACIFIC DIVISION UPDATE FEBRUARY, 1999 by Brad Wyatt, K6WR, Director, Pacific Division, ARRL 18400 Overlook Rd. #5, Los Gatos CA 95030-5850 (408) 395-2501 (Phone and FAX) Internet: K6WR@arrl.org. WWW Pacific Division Home Page - <http://www.pdarrrl.org>. Restructuring Docket Comment Period Now Closed:-The Reply Comment deadline on FCC WT Docket 98-143 closed Jan. 15,1999. The implementation of this Docket will set the framework for the Amateur Radio Service in the US for the next several years. The Docket and the ARRL "constructive suggestions" to the FCC on this Docket have been widely discussed in the Sept., Oct., Nov., and Dec. QSTs as well as in recent issues of the Pacific Division Update. As

this item is being written, there are over 2,000 Comments of all sorts on file at the FCC on this matter. These comments are available on the FCC web site at <http://quillfoss.fcc.gov.8080/cqi-bin/ws.exe/prod/ecfs/comsrch.hts>. You must have Adobe Acrobat Reader installed to read the actual comments. The ARRL Comments are also posted on the ARRL web site, www.arrl.org. Thanks to those of you who sent in your Comments and Reply Comments expressing your views about the future of Amateur Radio licensing and related topics! What happens next? I do not expect to see a Report and Order on this matter from the FCC until late spring 1999. It is also possible that regardless of whatever the FCC decides, Petitions for Reconsideration will be filed which would further delay the effective date of the Report and Order.

FCC Official Meets Hams On Their Own Turf:-The FCC's Amateur Radio enforcer, Riley Hollingsworth, K4ZDH, turned up in an unexpected place January 13 - on 75 meters! In what could be an unprecedented move, Hollingsworth, legal advisor for amateur enforcement within the FCC's Compliance and Information Bureau, showed up on 3894.5 KHz to discuss enforcement and encourage compliance. "A couple of them were pretty shocked," he said. "This has never been tried before," Hollingsworth said the next morning. He said he broke in on an argument that was growing increasingly nasty in an effort to settle things down, then stayed to discuss enforcement with the hams on frequency. Hollingsworth says he thinks one key to compliance is just getting people to listen to what he has to say. "Most people, if you can just get to them on a one-to-one basis, they'll listen," he said, reflecting his overall enforcement approach to attempt to reason violators into voluntary compliance rather than writing them up. During his time on the air, Hollingsworth confronted one individual he'd already been in touch with about alleged on-air misbehavior. Among other things, he told those on hand that noncompliance and inappropriate on-air behavior could even threaten the hobby's HF allocations. Hollingsworth advised hams to be more tolerant and patient and to avoid confrontation or retaliation. "We all have to realize we're on a mission here - to save Amateur Radio," he said the day after his 75-meter appearance. "There are going to be licenses lost and fines owed." The jammers already are well on their way to "hanging themselves" right now, he said. Even as he preached better behavior, Hollingsworth says he understood from the others on frequency that someone was attempting to jam his signal. "I hope the monitoring folks were on the frequency too," he said. Hollingsworth advised the hams on 75 to contact him with enforcement problems, and he gave out his e-mail address and telephone number (rholling@fcc.gov; 717-338-2502). "I don't know what effect it will have," he said of his on-air foray. Hollingsworth says he'll "do what it takes" to improve amateur compliance, and that could include future on-air visits with amateurs. "I've gotten a lot of feedback this morning by phone and e-mail asking me to do it more often," he said. "We'll be listening more and asking to be allowed in QSOs more." Hollingsworth, who's based in Gettysburg, Pennsylvania, took over the FCC's most recent Amateur Radio enforcement initiative last September.

Thanks, ARRL Letter Jan. 15, 1999

FCC Warns Alleged Major Amateur Offenders:-The FCC has issued strong warnings to two amateurs in Indiana and a third in New York who are on the Commission's top ten list of alleged major amateur offenders. The FCC's amateur enforcement point man, Riley Hollingsworth, K4ZDH, says the warning letters sent earlier this month are the last step before the FCC initiates formal enforcement proceedings. One case primarily involved malicious interference on VHF repeaters, while the other two involved interference to an HF net. "We have been cutting bait a while, now it's time for us to fish," said Hollingsworth, the legal advisor for enforcement within the FCC's Compliance and Information Bureau. The FCC did not make the names or call signs public, but Hollingsworth said all those who received the letters were put on the FCC's Alert List with FCC field offices. "The Alert List is the FCC equivalent of an all-points bulletin," Hollingsworth explained. He said Field Office monitors would be making a special effort to listen for further violations by stations on the Alert List. Since taking over Amateur Radio enforcement within the CIB last fall, Hollingsworth says he's sent out dozens of warning letters of a much milder nature. "Now, we're distilling that activity to the worst offenders," he said of the latest epistles. Hollingsworth indicated that similar actions were imminent in other major cases of alleged amateur rules infractions. He also said he has sent out another three dozen or so routine warning letters "generally based on a collection of complaints received over the holidays." The letters sent out January 7 and 8 spell out the agency's expectations in no uncertain terms. In the case of the alleged HF offenders, Hollingsworth's letters state that the Commission "has additional evidence that you have been deliberately and maliciously interfering with the operations of other licensed amateurs," primarily a 75-meter net. Both hams - whose cases are related - already had received official Notices of Violation last fall for similar conduct, and the FCC had imposed restricted operating hours on one of them. But the FCC says that the troublesome behavior has continued. Hollingsworth said the alleged illegal activities not only put the hams' licenses in jeopardy but open them up to possible fines and even put transmitting equipment at risk of seizure. He said he also has cautioned the controllers of the net involved to not engage hecklers or those attempting to harass

or interfere, nor to call up the net on a busy frequency. "One thing these nets have to understand is that the nets don't own the frequency," he said. The case of the alleged VHF offender had a similar pattern. The amateur license of the ham in question already had been suspended at one point, but violations are said to have continued, even during the suspension period. Beyond amateur violations, Hollingsworth said that the FCC's evidence indicated the amateur had threatened FCC employees and others. He told the ARRL that additional warning letters went out to eight other individuals whom he described as "cohorts" to the alleged prime VHF offender. Hollingsworth requested that all of the amateurs contact him immediately to discuss the allegations. After a lengthy telephone conversation with one of them, Hollingsworth expressed optimism that the situation would be resolved. In an unrelated case, Hollingsworth recently mailed warning letters to six individuals in the Pittsburgh, Pennsylvania, area regarding alleged malicious interference on VHF. Thanks, ARRL Letter Jan. 15, 1999.

ARRL Board Meets in Houston: The League's Board of Directors met at Houston, Texas, Friday, January 15, and Saturday, January 16, 1999, with President Rod Stafford, W6ROD, in the Chair. Opening the meeting was a tribute to former Northwestern Division Director Mary Lou Brown, NM7N, who passed away December 3 of last year, while in office. The assembly observed a special moment of silence in her memory. The Board adopted an initiative proposed by President Stafford to promote new technology in Amateur Radio. The League's policymakers created the "Amateur Radio Technology Task Force" to develop a strategy and plan for exploring new technologies, assessing their applicability and possible incorporation into Amateur Radio. Stafford will appoint members to the task force who have been actively involved in experimenting with or developing new technology. An initial report is due next January. In a collateral move, the Board reconstituted the Future Systems Committee as the "Amateur Radio Technology Working Group" to serve as a resource for the Technology Task Force. ARRL legislative positions for the 106th Congress were adopted. The Board reviewed a draft petition for rule making for possible joint submission with the National Frequency Coordinators' Council (NFCC), to seek rules requiring that all repeater and auxiliary facilities must be frequency coordinated. A majority of the Board did not find that there was compelling evidence warranting a move beyond the existing rules at this time, but the NFCC was invited to revisit the matter. The International Humanitarian Award was given to Radio Amateur du Quebec, Inc. (RAQI) for its service to the citizenry of Quebec during the 1998 ice storm, which devastated the region. Following a study of the Y2K computer issue by its Volunteer Resources Committee, the Board recommended that Section Managers, Section Emergency Coordinators, and ARES groups enter into MOUs, and conduct drills, with public utilities and public safety agencies for emergency communications necessitated by possible Y2K problems. Directors Kay Craigie, WT3P, Frank Fallon, N2FF, Fried Heyn, WA6WZO, and Tod Olson, K0TO, were elected to the Executive Committee for the 1999 term. The Executive Committee was tasked with developing a proposal for changing the name of the ARRL to one that more clearly reflects the focus and purpose of the organization to both insiders and outsiders. The Board felt that the year 2000 is a natural point for such a change. Responding to an offer by the founding sponsor of "Kid's Day," ARRL will assume sponsorship of this operating event that introduces Amateur Radio to hundreds of kids in a creative format. See page 46, January 1999 QST for more on this innovative program. The Board voted to support the election of Larry E. Price, W4RA, as IARU President and David A. Wardlaw, VK3ADW, as IARU Vice President, for the 1999-2004 term. Following the recommendations of its Administration and Finance Committee, the Board approved operating and capital spending plans for 1999. Eugene Hastings, W1VRK, and ARRL Directors John Kanode, N4MM, and Greg Milnes, W7AGQ, were elected to three-year terms as directors of the ARRL Foundation. The full story and minutes of the meeting will appear in March QST. Thanks, ARRL Bulletin Jan. 18, 1999

73's

Bill

PS-

Microwave Standings- late last year the Standings Records changed from Emil Pocock, W3EP, "World Above 50 MHz" column to Steve Ford, WB8IMY, QST Managing Editor. Steve indicated to send your records via email to "standings@arrl.org". Include the band, best DX, number of grids, number of states. Normal mail will work too.